

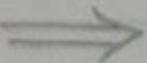
★ 15 transaction \rightarrow 4% is 6 times

Step 1

C₁

L₁

| Itemset |
|---------|
| milk |
| Bread |
| Butter |
| beer |



| Itemset | sup |
|---------|-----|
| milk | 9 |
| Bread | 10 |
| Butter | 7 |
| beer | 5 |

bottom support

Step 2

C₂

L₂

| Itemset |
|-----------------|
| (milk, Bread) |
| (milk, Butter) |
| (bread, butter) |

| Itemset | sup |
|-----------------|-----|
| (milk, Bread) | 6 |
| (milk, butter) | 5 |
| (bread, butter) | 6 |

Step 3

C₃

L₃

| Itemset |
|-----------------------|
| (milk, bread, butter) |

| Itemset | sup |
|-----------------------|-----|
| (milk, bread, butter) | 4 |

* Candidate rules come from L₂

- milk → Bread
- bread → Milk
- bread → butter
- butter → bread

| Rule | set | cnt | set | cnt | Confidence |
|-------------------------|--------|-----|---------------------|-----|------------------------|
| If milk then bread | milk | 9 | milk and bread | 6 | $\frac{6}{9} = 66.6\%$ |
| If bread then milk | bread | 10 | bread and milk | 6 | $\frac{6}{10} = 60\%$ |
| If bread then butter | bread | 10 | bread and butter | 6 | $\frac{6}{10} = 60\%$ |
| If butter then bread | butter | 7 | butter and bread | 6 | $\frac{6}{7} = 85.7\%$ |

∴ If we want Confidence > 70 %

So the rule is :-

If butter then bread